



INDIAN INSTITUTE OF TECHNOLOGY- (IIT) MANDI,
Himachal Pradesh -175005, India

SCHOOL OF COMPUTING AND ELECTRICAL ENGINEERING (SCEE)

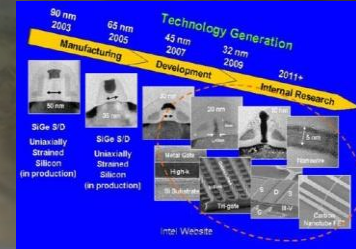
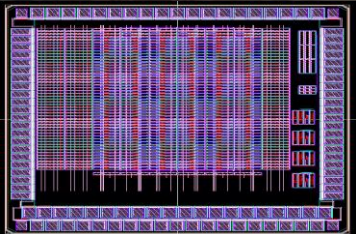
M.TECH - VLSI

M.Tech: Very Large Scale Integration (VLSI)

To Mentor students: VLSI Design & Technology

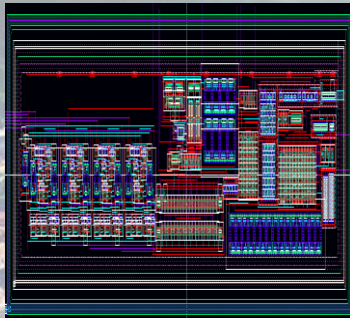
Materials to Devices
for

SEMICONDUCTOR: INDUSTRY & ACADEMIA



CHIP DESIGNING TOOLS:

- CADENCE
- MENTOR GRAPHICS
- SYNOPSIS
- SILVACO
- CENTAURUS
- COMSOL
- XILINX



FABRICATION TOOLS:

- **Clean Rooms:** Class 100 and above
- **Lithography:** Optical UV/DUV, MASKLESS & EBL.
- **Thin Film Deposition Systems:** Atomic Layer Deposition (ALD), RF/DC Sputtering, Chemical Vapor Deposition (CVD), Thermal Evaporator, Spin Coater.
- **Annealing Systems:** Three - Zone Furnace, Oxidation/Diffusion Furnace.

ELIGIBILITY:

BE/B. Tech. (EE/EEE/ECE/IN)/M.Sc. (Electronics Science)
&
Valid Gate Score

CHARACTERIZATION TOOLS

- **Electrical:** Keithley SCS 4200
- **Surface morphology:** Atomic Force Microscopy (AFM), Field Emission Scanning Electron Microscopy (FE-SEM), High-Resolution Transmission Electron Microscopy (HR-TEM).
- **Material:** X-Ray Diffractometer (XRD), Raman, X-ray photoelectron spectroscopy (XPS).
- **Thickness:** Stylus Profilometer, Ellipsometer, Optical Profilometer, Optical Microscope.

